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## HESSIAN FLY SURVEY AT HARVEST TIME 1939

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Field surveys made by the Bureau of Entomology and Plant Quarantine at Manhattan, Kans.; Lafayette, Ind; and Carlisle, Pa., and by the State agricultural experiment stations of Illinois and Ohio indicate that hessian fly infestations are low in wheatfields throughout Maryland, Delaware, Virginia, north-central North Carolina, Tennessee, southern Illinois, and central and western Kansas. There are, however, menacing populations of flies in local fields and areas in most of these States or districts.

Hessian fly infestations range from low to moderate in eastern and south—central Pennsylvania, Kentucky, southern Indiana, southern Michigan, southwestern Missouri, and eastern Kansas, with local infestations trending upward. No surveys were reported for the remainder of Missouri or for Iowa or Nebraska, but fragmentary data indicate that infestations are from low to moderate in central and northern Missouri, southeastern Nebraska, and southern Iowa. Observance of the safe-seeding dates is advised in all areas of low-to-moderate infestation, because the season has been favorable for hessian fly and for growths of volunteer wheat in many areas.

From moderate to heavy infestations of the hessian fly occur in north-central and western Pennsylvania, north-central Ohio, the northern two thirds of Indiana, and central Illinois. In these areas the fly is menacing and the seeding of wheat should be delayed until the safe-seeding date or from 1 to 3 days after that date, in order to lessen the chances of heavy infestation of hessian fly.

The summarized data below and the accompanying map indicate more fully the regions covered by the survey and the general trend of fly infestations. A field sample in the survey usually consisted of 50 wheat stems.

- Area	Fields : Stems infested			
	sampled:		Maximum:	
	Numter :	Percent	Percent :	Percen
Kansas:	:		:	
Eastern	J	7	42 :	0
Central and western	22 .	0.1	2 :	0
Missouri:				
Southwestern	7	5	21	0
Illinois: 1/				
Central		1,14		
Southern				
Southern		2 . :		
Michigan:				
Southern	: 48 :	8	50 :	0
	:		:	
Indiana:	:	7.0	00	^
Northern and central		19 :	98 1414	0
Southern	86	Ь	44	0
Ohio=/		20.5		<b>,,</b>
Unio	; ;; !	20.5	;	parts auris
Kentucky:				
Western	22 :	g	30 :	0
East-central	: 35 :	6	54 :	0
	•	1		
Tennessee:	. 00	74	22	0
West-central and eastern	92	41	24	0
Fennsylvania:				
Western	: 15 :	21	52 :	0
North_central	•	19		6
South_central	35 :	g	52 40	0
Eastern		12	42 :	0
Delaware	: 15	2	6	0
DOLENVELL C	15	د		O
Maryland:				
Western	25 :	5	18 :	0
Eastern		2	g ;	0
Vinginios				
Virginia:	25	E	18	0
		5 4	18	0
Northeastern		3	18	0
SOU OH-CERT FAL	15	5	O	U
North Carolina:				
North-central	45	5	26	0

<sup>1/</sup>Mostly from surveys by State entomologists.



